

# Pavement Asset Management



MAP-21 Performance  
Planning and Measurement  
Coordination Workshop  
Doubletree - Sacramento  
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# Pavement Asset Management Agenda

- Asset Management in MAP-21
  - Steve Healow P.E.
- Caltrans Asset Management
  - Steve Guenther P. E.
- Caltrans Pavement Asset Management Plan
  - Susan Massey P.E.
  - Brian Domesic

# What does MAP-21 require of State DOTs re. Asset Management?

“...“(e) State Performance Management.--

“(1) In general.--A State shall **develop a risk-based asset management plan for the National Highway System** to improve or preserve the condition of the assets and the performance of the system.

“(2) Performance driven plan.--A State asset management plan shall include strategies leading to a program of projects that would **make progress toward achievement of the State targets for asset condition and performance** of the National Highway System...and **supporting the progress toward the achievement of the national goals** identified in section 150(b).”

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MAP-21 Section 1106 “National Highway Performance Program”

# Parts of a state DOT asset management plan

“...(A) a summary listing of the pavement and bridge assets on the National Highway System in the State, including a description of the condition of those assets;  
(B) asset management objectives and measures;  
(C) performance gap identification;  
(D) lifecycle cost and risk management analysis;  
(E) a financial plan; and  
(F) investment strategies...”

- MAP-21Section 1106 NATIONAL HIGHWAY PERFORMANCE PROGRAM.

# Strategic Goals are similar

## MAP-21 Section 1203 National Goals

- Safety
- Infrastructure Condition
- Congestion Reduction
- System Reliability
- Freight Movement and Economic Vitality
- Environmental Sustainability
- Reduced Project Delivery Delays

## Caltrans Strategic Goals

- Safety
- Mobility
- Delivery
- Stewardship
- Service



# In summary

- The State DOT's asset management plan for the NHS
  - is risk-based and performance driven
  - purpose: improve or preserve the condition of the assets and the performance of the system.
  - shall include strategies leading to a program of projects that will
    - make progress toward achievement of the State targets for asset condition and performance
    - support progress toward the achievement of the national goals

# Caltrans Asset Management

- Office of Strategic Management
  - Lead for Caltrans Asset Management Plan coordination
  - Financial, Organizational Change, Data Management and Integration, etc.
- Executive Board Committee on Asset Management (Feb. 2013)
- Caltrans Asset Management Plan
  - Pavements, bridges, culverts, ITS elements
- Draft Caltrans Asset Management Plan – April 2015

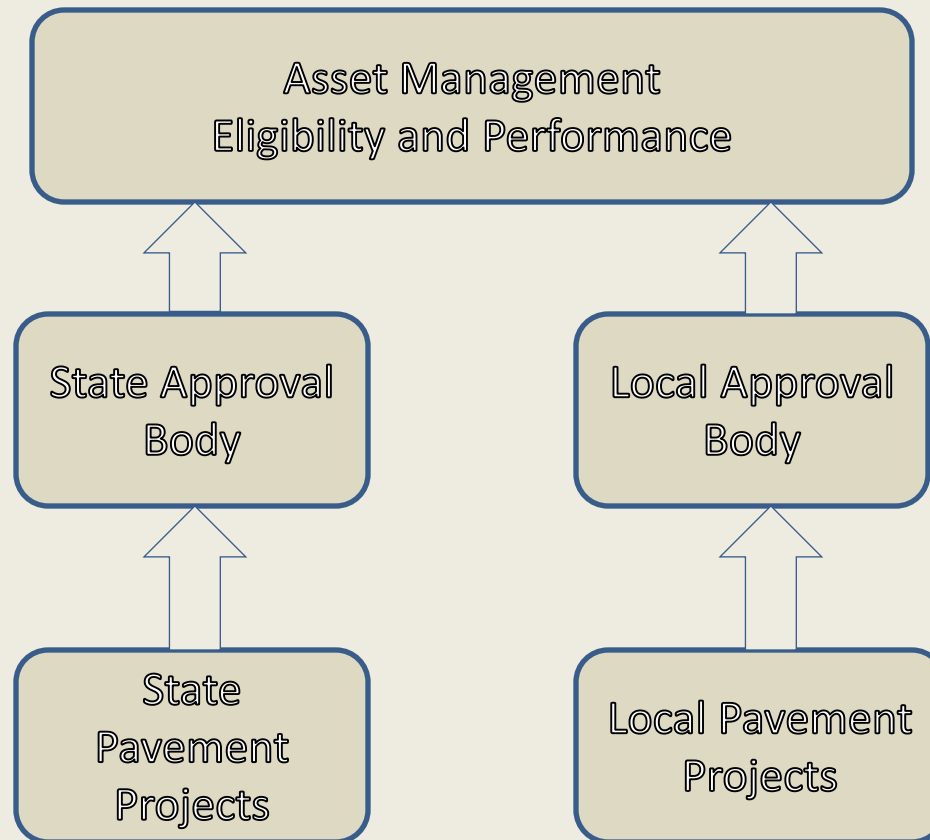
# Communication of the Pavement AMP

- What are the roles of the MPOs and RTPAs to develop the NHS Pavement AMP?
- Who are the stakeholders?



# NHS Pavement Management Approach

## Two Approval Bodies?



The National Highway System (NHS) includes all of the principal arterials and some minor arterials and collectors, which are mostly intermodal connectors

Over 14,300 centerline miles of public road are on the NHS and this accounts for about 8% of some 176,800 centerline miles of public roads in the state

It is about a 60/40 ratio of State to non-State NHS

Miles	Percent	
8690	60.6%	State Highway System
5657	39.4%	Local Road Systems
14346		Total mileage of NHS

**The state is required to measure IRI on all of the NHS annually**

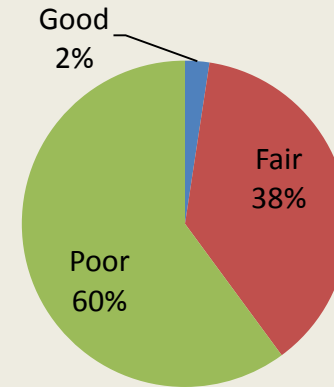
## Measuring and reporting IRI is a work in process

Miles of NHS	Miles of NHS with IRI	<u>Percent Measured</u>	
8690	4740	55%	State Highway System
5657	4160	74%	Local Road Systems
14346	8900	62%	Total measured on NHS

## IRI on the National Highway System (NHS)

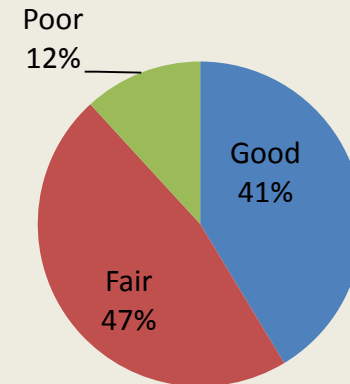
### Non-State System

IRI	Condition	Sum of Length	
1-94	Good	100	2%
95-170	Fair	1560	38%
Over 170	Poor	2500	60%
NSHS Total		4160	



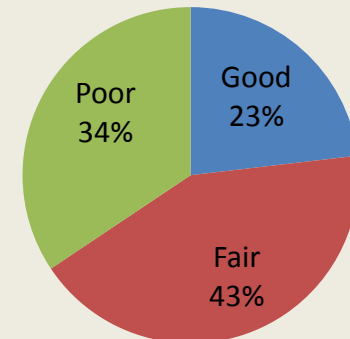
### State System

IRI	Condition	Sum of Length	
1-94	Good	1960	41%
95-170	Fair	2220	47%
Over 170	Poor	560	12%
SHS Total		4740	



### State and Non-State Systems

IRI	Condition	Sum of Length	
1-94	Good	2060	23%
95-170	Fair	3780	42%
Over 170	Poor	3060	34%
Total		8900	





The end

